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What is claimed is:

1. A joint structure, comprising:
a gusset plate; and
at least one splice plate connected to said gusset plate, said at least one splice plate being constructed from section steel having a non-rectangular cross-section.
2. The joint structure according to claim 1, wherein said gusset plate is connectable to a first structural member and said at least one splice plate is connectable to a second structural member.
3. The joint structure according to claim 1, wherein said gusset plate connected to said at least one splice plate is a first gusset plate, said first gusset plate being connectable to a second gusset plate.
4. The joint structure according to claim 3, wherein said first gusset plate is a vertical gusset plate and said second gusset plate is a horizontal gusset plate, said horizontal gusset plate being connected to at a least one additional splice plate constructed from section steel having a non-rectangular cross-section.
5. The joint structure according to claim 1, wherein said section steel is prefabricated section steel having a non-rectangular cross-section.

6. The joint structure according to claim 5, wherein said prefabricated section steel having a non-rectangular cross-section is formed off site by connecting at least one rib to a flat plate.

7. The joint structure according to claim 1, wherein the gusset plate includes a rib connected to at least one of a top edge and a vertical upright edge thereof to increase the buckling strength of the gusset plate.

8. The joint structure according to claim 1, wherein at least one of said splice plates extends toward a corner of the gusset plate beyond a yield line of the gusset plate defined by the yield line theory to increase the buckling strength of the gusset plate.

9. The joint structure according to claim 1, wherein said gusset plate includes first and second faces and first and second ends, said first and second ends being connected by an end edge, and said first and second ends have a rib connected thereto and said first and second faces having no stiffening ribs connected thereto.

10. The joint structure according to claim 1, wherein said gusset plate includes first and second faces, each of said first and second faces having a stiffening rib connected thereto, and said stiffening ribs do not extend beyond a yield line of the gusset plate defined by the yield line theory.

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11. The joint structure according to claim 10, wherein said gusset plate includes first and second ends, said first and second ends being connected by an end edge and having a stiffening rib connected thereto.

12. The joint structure according to claim 1, wherein said gusset plate includes first and second faces, said first and second faces having no stiffening ribs connected thereto.

13. A building, comprising:
at least one structural member; and
a joint structure connected to said at least one structural member, said joint structure comprising:
a gusset plate; and
at least one splice plate connected to said gusset plate, said at least one splice plate being constructed from section steel having a non-rectangular cross-section.

14. The building according to claim 13, wherein said gusset plate is connected to a first of said structural members and said at least one splice plate is connected to a second of said structural members.

15. The joint structure according to claim 13, wherein said gusset plate connected to said at least one splice plate is a first gusset plate, said first gusset plate being connectable to a second gusset plate.

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16 The joint structure according to claim 15, wherein said first gusset plate is a vertical gusset plate and said second gusset plate is a horizontal gusset plate, said horizontal gusset plate being connected to at a least one additional splice plate constructed from section steel having a non-rectangular cross-section.

17. The building according to claim 13, wherein said section steel is prefabricated section steel having a non-rectangular cross-section.

18. The building according to claim 17, wherein said prefabricated section steel having a non-rectangular cross-section is formed off site by connecting at least one rib to a flat plate.

19. The building according to claim 13, wherein the gusset plate includes a rib connected to at least one of a top edge and a vertical upright edge thereof to increase the buckling strength of the gusset plate.

20. The building according to claim 13, wherein at least one of said splice plates extends toward a corner of the gusset plate beyond a yield line of the gusset plate defined by the yield line theory to increase the buckling strength of the gusset plate.

21. The building according to claim 13, wherein said gusset plate includes first and second faces and first and second ends, said first and second ends being connected by an end edge, and said first and second ends have a rib connected thereto and said first and second faces having no stiffening ribs connected thereto.

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22. The building according to claim 13, wherein said gusset plate includes first and second faces, each of said first and second faces having a stiffening rib connected thereto, and said stiffening ribs do not extend beyond a yield line of the gusset plate defined by the yield line theory.

23. The building according to claim 22, wherein said gusset plate includes first and second ends, said first and second ends being connected by an end edge and having a stiffening rib connected thereto.

24. The building according to claim 13, wherein said gusset plate includes first and second faces, said first and second faces having no stiffening ribs connected thereto.

25. A method of assembling or reinforcing a building, comprising the steps of:
providing a gusset plate and at least one splice plate, said at least one splice plate having a non-rectangular cross-section; and
connecting a first end of said splice plate to said gusset plate.

26. The method according to claim 25, wherein said method does not include on site welding to assemble or reinforce the building.

27. The method according to claim 25, further comprising the step of connecting a second end of said splice plate to a structural member of the building.

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28. The method according to claim 27, further comprising the step of connecting the gusset to a structural member of the building.

29. The method according to claim 25, wherein the gusset is a preexisting gusset attached to the building, the preexisting gusset including a stiffening rib attached thereto, said method further comprising the step of connecting said first end of said splice plate to the stiffening rib of the preexisting gusset.

30. The method according to claim 25, wherein said gusset plate connected to said at least one splice plate is a first gusset plate, said method further comprising the step of connecting said first gusset plate to a second gusset plate.

31. The method according to claim 30, wherein said first gusset plate is a vertical gusset plate and said second gusset plate is a horizontal gusset plate, said method further comprising the step of connecting said horizontal gusset plate to at least one additional splice plate.

32. The method according to claim 25, further comprising the step of extending said at least one splice plate toward a corner of the gusset plate beyond a yield line of the gusset plate defined by the yield line theory to increase the buckling strength of the gusset plate.